

REMARKS / ARGUMENTS

Status of Claims

Claims 1-3, 5-8, 10-27, 30-34 were pending and have been rejected by the Examiner. Claims 1, 5, 6, 10-13, 21-25 and 27 have been amended. Claims 14-20 and 30 have been cancelled. Accordingly, claims 1-3, 5-8, 10-13, 21-27, and 31-34 are presented and at issue. Reconsideration is respectfully requested in view of the foregoing claim amendments and following remarks.

Claim Objections

The Examiner objected to claims 5-6 and 30 as depending from cancelled claims. Accordingly, claims 5 and 6 have been amended to depend from currently pending claim 1. Claim 30 has been cancelled. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw these objections, which Applicant considers to be overcome.

Rejections Under 35 U.S.C. §103(a)

Claims 1, 10-12, 19, 21-22, 30, 25, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,845,278 issued to Steven T. Kirsch et al. ("Kirsch") in view of U.S. Patent Publication No. 2002/0026345 issued to Ari Juels ("Juels"). Applicant traverses this rejection for the following reasons.

The Examiner's obviousness rejection based Kirsch in view of Juels is improper as Kirsch and Juels fail to teach or suggest each and every element of the instant invention in such a manner as to perform as the claimed invention performs. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention are taught or suggested in the prior art. MPEP §2143.03.

Independent claim 1 has been amended to recite, *inter alia*, passing a content vector

from a first content provider in a privacy group of the plurality of privacy groups to a second content provider in the privacy group of the plurality of privacy groups;

the first and second content providers operating on the content vector with a randomized algorithm;

sending a plurality of content vectors to a designated host, each content vector of the plurality of content vectors corresponding to a respective privacy group of the plurality of privacy groups; and

aggregating the plurality of content vectors into a materialized index comprising the privacy-preserving index structure.

Independent claims 25 and 31 have been amended to recite similar limitations.

Support for the foregoing recitations is found throughout Applicants' specification. Refer, for example, to Applicants' specification at page 23, line 4 to page 25, line 12. No new matter has been added.

The Examiner acknowledges that Kirsch is deficient in anticipating the claimed invention, and looks to Juels to cure these deficiencies. However, even if the teachings of Kirsch and Juels are somehow combined, the resulting combination fails to meet Applicants' claimed invention as set forth in independent claims 1, 25 and 31.

Kirsch fails to describe Applicants' claimed plurality of content providers cooperating to create a privacy-preserving index structure. Kirsch also fails to describe Applicants' claimed grouping the content providers into a plurality of privacy groups. Juels also fails to disclose these limitations.

In contrast to Applicants' claimed invention, Kirsch discloses that "the method may operate from a meta-data index database created from standardized format collection statistics summary files autonomously developed from the individual collections and preferably from the collection indexes. By using the collection indexes directly as the source of information for the summary files, the present invention (i.e., Kirsch) establishes an independence from the proprietary algorithms used in creating the source indexes (refer to col. 5, lines 25-31 of Kirsch).

Kirsch discloses building a meta-data index database by using collection indexes previously generated using, for example, proprietary algorithms. In contrast, Applicants' present invention generates a privacy-preserving index structure collaboratively, by passing a content vector from provider to provider within a provider group, each provider operating on the content vector with a randomized algorithm, each provider group sending their respective content vector to a designated host, and aggregating the content vectors of the provider groups into a materialized index which is the privacy-preserving index.

Applicants respectfully submit that the meta-data index of Kirsch teaches away from the privacy-preserving index structure of Applicants' claimed invention. Rather, Kirsch discloses "effective search terms of the processed query 12 are then provided to the collection meta-index search engine 14 for analysis against a collection meta-index 16. (refer to Kirsch, col. 7, lines 55-57). Kirsch further discloses "the meta-index 16 thus contains a set of documents that directly correspond to the set of document collections potentially searchable in response to any user query 12". (Kirsch, col. 7, lines 63-65). Kirsch essentially teaches mapping queries to lists of matching documents. In contrast, the present invention maps queries to lists of matching providers. Given a list of providers that may satisfy a query, it is up to the searcher to directly query such providers and request matching documents. The providers, on receiving a query and authenticating the searcher, return a list of documents filtered according to the access rights of the searcher (refer, for example, to page 20, lines 7-13 of Applicants' disclosure).

Juels discloses techniques for enabling use of detailed customer profiles for purposes of targeted information delivery while protecting these profiles from disclosure to third parties. With reference to paragraph [0046] of Juels, a negotiant protocol is used to provide group privacy for the consumers such that an advertiser can only learn about the aggregate information requests of a group of consumers. However, Juels fails to disclose or suggest Applicants' claimed privacy groups that contain content providers as opposed to consumers. Moreover, Juels fails to disclose or suggest Applicants' claimed

passing of a content vector from a first content provider to a second content provider while enabling the entities in the privacy group (in Juels' case, the consumers) to operate on the content vector. Juels also fails to disclose or suggest Applicants' claimed sending a plurality of content vectors to a designated host, each content vector of the plurality of content vectors corresponding to a respective privacy group of the plurality of privacy groups. Finally, Juels fails to disclose or suggest Applicants' claimed aggregating the plurality of content vectors into a materialized index comprising the privacy-preserving index structure.

In view of the foregoing analysis, Applicants submit that Kirsch and Juels fail to teach or suggest each and every element of the invention as set forth in independent claims 1, 25, and 31. It is further submitted that independent claims 1, 25, and 31 are allowable over the prior art of record. Claims 10-12, 19, and 21-22 depend from independent claim 1 and include all recitations thereof. Similarly, claim 30 depends from independent claim 25 and includes all recitations thereof. Accordingly, dependent claims 10-12, 19, 21-22, and 30 are allowable over the prior art of record for the reasons indicated above with respect to independent claims 1, 25 and 31.

Kirsch and Juels are wholly inadequate in their teaching of the claimed invention as a whole, fail to motivate one skilled in the art to do what Applicants have done, fail to recognize a problem recognized and solved only by the present invention, and disclose a substantially different invention from the claimed invention, and therefore cannot properly be used to establish a prima facie case of obviousness. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection under 35 U.S.C. §103(a), and Applicants now consider this rejection to be traversed.

Claims 2-3, 5-8, 26-27, 32-34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kirsch in view of in view of US 2002/0026345 issued to Ari Jules ("Jules") as applied to claim 1 above, and further in view of US 2004/0260680 issued to Steven Francis Best et al ("Best"). Dependent claims inherit all of the limitations of the

respective parent claim and any intervening claim. It is submitted that, as a matter of law, claims 2-3 and 5-8 are allowable because claims 2-3 and 5-8 depend from allowable claim 1. It is submitted that, as a matter of law, claims 26-27 are allowable because claims 26-27 depend from allowable claim 25. It is submitted that, as a matter of law, claims 32-34 are allowable because claims 32-34 depend from allowable claim 31.

Claims 23-24 were rejected under 35 U.S.C 103 (a) as being unpatentable over Kirsch in view of in view of US 2002/0026345 issued to Ari Juels (“Juels”) as applied to claims 1,10,12,19-22 above, and further in vie of US 6,879, 976 issued to David E. Brookler et al (“Brookler”). Dependent claims inherit all of the limitations of the respective parent claim and any intervening claim. It is submitted that, as a matter of law, claims 23-24 are allowable because claims 23-24 depend from allowable claim 1.

Claim 13 was rejected under 35 USC 103 as being unpatentable over Kirsch in view of Jules and further in view of Liskov. Dependent claims inherit all of the limitations of the respective parent claim and any intervening claim. It is submitted that, as a matter of law, claim 13 is allowable because claim 13 depends from allowable claim 1.

Claims 14-18, 20 were rejected under 25 U.S.C. 103 (a) as being unpatentable over Kirsch in view of US 2002/0026345 issued to Ari Juels (“Juels”) as applied to claim 1,10,12-13 above, and further in view of US 2005/0076104 issued to Barbara Liskov et al (“Liskov”) and further in view of US 6,879,976 issued to David E. Brookler et al (“Brookler”). Dependent claims inherit all of the limitations of the respective parent claim and any intervening claim. It is submitted that, as a matter of law, claims 14-18 and 20 are allowable because claims 14-18 and 20 depend from allowable claim 1.

In addition to the foregoing, Applicants find no motivation or teaching in any of the cited References to modify a primary Reference in view of its respective secondary Reference to arrive at the claimed arrangement of elements without disturbing the

intended purpose of the art being modified.

In view of the foregoing, Applicant submits that the References fail to teach or suggest each and every element of the claimed invention and are therefore wholly inadequate in their teaching of the claimed invention as a whole, fail to motivate one skilled in the art to do what the patent Applicant has done, fail to recognize a problem recognized and solved only by the present invention, fail to offer any reasonable expectation of success in combining the References to perform as the claimed invention performs, fail to teach a modification to prior art that does not render the prior art being modified unsatisfactory for its intended purpose, and discloses a substantially different invention from the claimed invention, and therefore cannot properly be used to establish a prima facie case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of all rejections under 35 U.S.C. §103(a), which Applicant considers to be traversed.

In light of the foregoing remarks and amendments, Applicant respectfully submits that the proposed amendments and arguments comply with 37 C.F.R. §1.116 and should therefore be entered, and with their entry that the Examiner's rejections under 35 U.S.C. §103(a), have been traversed, and that the application is now in condition for allowance. Such action is therefore respectfully requested.

If a communication with Applicant's Attorneys would assist in advancing this case to allowance, the Examiner is cordially invited to contact the undersigned so that any such issues may be promptly resolved.

The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 09-0441

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,

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